




MUMPS


2006 OUTBREAK






✓ **Description** An acute viral illness caused by the mumps virus

✓ **Symptoms** **Fever**

- Headache
 - Muscle aches
 - Tiredness
 - Loss of appetite
 - Swelling of salivary glands. The parotid salivary glands (which are located within your cheek, near your jaw line, below your ears) are most frequently affected.
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Diagnosis

- Should be made by your physician and laboratory testing may be required
 - Grandmother will tell you to give a pickle.
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🌿 **Complications:** Severe complications are rare. However, mumps can cause:

- Encephalitis/meningitis (10 percent of people)
 - Inflammation of the testicles (orchitis)
 - Inflammation of the ovaries and/or breasts (oophoritis and mastitis)
 - Spontaneous abortion
 - Deafness, usually permanent
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Transmission

- The mumps virus replicates in the upper respiratory tract and is spread through **direct contact** with respiratory secretions or saliva or through fomites.
 - The **infectious period** or time that an infected person can transmit mumps to a non-infected person is from 3 days before symptoms appear to about 9 days after the symptoms appear.
 - The incubation time, which is the period from when a person is exposed to virus to the onset of any symptoms, can vary from 16 to 18 days (range 12-25 days).
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Treatment

- Currently, there is no specific treatment for mumps.
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2005/2006 OUTBREAK




MOST RECENT DATA

As of 4 May, the Centers for Disease Control and Prevention (CDC) reported **2,869** confirmed, probable and suspected cases tied to the mumps outbreak in **13 states**, including 1,552 in Iowa. Another 1,305 cases are in Nebraska, Kansas, Illinois, Wisconsin, Missouri, Pennsylvania and South Dakota. Twelve isolated, sporadic cases related to travel to the eight states were reported from **Colorado**, Minnesota, Mississippi, Arkansas and New York. CDC spokeswoman Lola Russell said that 35 patients had been hospitalized so far for complications from mumps or conditions that may have been caused by mumps.



Normal Case Year

- In the United States, since 2001, an average of 265 mumps cases (range: 231-293) have been reported each year
 - In this outbreak, most cases are among persons aged **18-24 years**; some colleges in these states are experiencing outbreaks.
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When and Where

- ✓ The first cases of mumps-like illness were reported from Iowa in December 2005.
- ✓ The current information indicates that the outbreak may have begun on a college campus
 - CDC recommends that all college students have two doses of measles-mumps-rubella (MMR) vaccine. Studies have suggested that strict enforcement of these recommendations is important for preventing and stopping outbreaks



VACCINE



Vaccine

- ✓ Properly immunized children are well-protected from the virus and need no restrictions on their activities. As for young adults living in dormitories and around college campuses, public health authorities may issue advisories because **many in this age group may not have received both MMR shots.**
- ✓ Birth before 1957 is generally accepted as proof of mumps immunity but does not guarantee immunity.
- ✓ In an outbreak, vaccinating persons born before 1957 with 1 dose of MMR should be considered if the epidemiology of the outbreak suggests increased risk of disease in persons of this age.

Vaccination Failure?

- About 10 percent of people who get both doses of the vaccine still remain susceptible to mumps.
 - In a community of 10,000 people and 10 percent of the people who got both doses of the vaccine are susceptible, once you get a little outbreak going in that community, that means that up to 1,000 people in the community would actually come down with mumps even though they were properly immunized with a very good vaccine.

Elderly



- ✓ MMR vaccine is safe for most elderly persons; some with certain medical problems should not get the vaccine.
- ✓ Most elderly persons are probably immune to mumps because they had mumps as a child.
- ✓ However, if this group is affected by the outbreak, vaccinating elderly persons with 1 dose of MMR should be considered

Infants

- The MMR vaccine has not been studied extensively in infants who are not 1 year old yet.
- Antibody from the mother may protect the infant during the first year of life, but this wears off during the first year

Recommendations

- ☛ Anyone with mumps should not go back to child care, school or work for 9 days after symptoms begin.
- ☛ People who come in contact with a mumps case should have their immunization status evaluated. Anyone who has not received mumps-containing vaccine (preferably MMR vaccine) should be vaccinated. The local health department or a physician can help determine if a person needs one or two doses of MMR vaccine.
- ☛ Persons who may have been in contact with a mumps case should be educated on the signs and symptoms of mumps disease and should seek medical advice

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- ✔ All children 12 months to 4 years of age should have had 1 dose of MMR vaccine.
 - ✔ All school-aged children (K-12) and students attending post-high school educational institutions should have had 2 doses of vaccine
 - ✔ Adults who live in or travel to an outbreak affected area should have at least 1 dose, unless you were diagnosed by a doctor with mumps earlier in life, or have laboratory evidence of immunity to mumps
 - ✔ If you don't know if you had vaccine or mumps in the past, it is safe to get the vaccine.
 - ✔ Particularly for adults who plan to attend a large gathering in a state with many mumps cases, vaccination with a two doses of MMR should be considered.
 - ✔ 2 weeks after vaccination before your body develops immunity
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Travel and Planes

- There may be some risk of getting sick from illnesses, such as mumps, during air travel that can be spread by mucus or droplets from the nose or throat of an infected person, usually when a person coughs or sneezes
- The current outbreak investigation has identified people who may have been traveling while infectious with mumps
 - Two passengers may have been infected with mumps while traveling on an airplane
 - It is possible they could have been infected prior to travel
- The risk of mumps transmission on an airplane is probably low



PREVENTION AND CONTROL IN THE HEALTHCARE SETTING



Transmission Review

- Mumps transmission has occurred in past outbreaks involving hospitals and long-term care facilities housing adolescents and young adults
- Portals of entry are the nose and mouth
- In unvaccinated persons, unilateral or bilateral parotitis occurs in approximately half of patients infected with mumps; 15-20% are asymptomatic and the remainder has nonspecific, flu-like symptoms
- The infectious period is considered to be from 3 days before to 9 days after symptom onset
- The risk of transmission from infected individuals who are asymptomatic or have non-specific respiratory symptoms is not known

Preventing Transmission



- Preventing transmission of mumps in healthcare settings consists of four major components
 - Assessment of evidence of immunity of healthcare workers, including:
documentation of clinical disease,
laboratory evidence, birth before 1957 or
appropriate vaccination history
 - Vaccination of those without evidence of immunity
 - Vaccination of non-immune healthcare workers who are exposed to confirmed, probable or suspected mumps patients
 - Isolation of patients in whom mumps is



Healthcare Workers Immunity

- ✓ The immune status of personnel should be determined by either of the following criteria
- ✓ History of physician-diagnosed mumps
- ✓ Documentation of mumps vaccination (mumps or MMR vaccines)
 - During an outbreak of mumps, two doses of MMR vaccine are recommended for healthcare personnel
 - Current recommendations for two doses of MMR for healthcare personnel have indirectly satisfied this requirement in most cases

HCW Exclusion

- Exclude healthcare workers with active mumps illness; and those who are non-immune and have been exposed to mumps
- Exposure is defined as being within three feet of a patient with a diagnosis of mumps
- Irrespective of their immune status, all exposed healthcare workers should be monitored for signs and symptoms of illness during the incubation period, 12-25 days after exposure

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- Healthcare workers with mumps illness should be excluded until 9 days after the onset of parotitis
 - A diagnosis of mumps should be considered in non-immune healthcare workers who develop non-specific respiratory infection symptoms during the incubation period after exposure to mumps, even in the absence of parotitis
 - Because 1 dose of MMR vaccine is about 80% effective in preventing mumps and 2 doses is about 90% effective, vaccinated health care workers should be educated about symptoms of mumps, including non-specific presentations, and should notify employee health if they develop these symptoms
 - Non-immune personnel should be excluded from the 12th day after the first exposure to mumps through the 26th day after the last exposure
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- Non-immune healthcare workers may return to work after receiving one dose of MMR vaccine, but should receive a second dose 28 days after the 1st dose
 - HCWs who have received only one dose of MMR may continue to work, but should receive a 2nd dose as soon as possible provided there is a 28-day interval between the first and second dose
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Patient Isolation

- ✓ In addition to standard precautions, patients with clinical signs and symptoms of mumps illness should be cared for using **droplet precautions**
- ✓ Droplet precautions should be maintained for 9 days after onset of parotitis

Reporting Suspected Cases

- ☞ Mask the patient immediately
- ☞ Isolate them and use droplet precautions
 - Mask the staff
 - Hand hygiene
- ☞ **CALL OR PAGE ME IMMEDIATELY**
 - **526-7821 or Pager 520-8615**
- ☞ All cases are reportable